

## Amendment 345 Contract No. 229944

### To the Contract for the Design, Implementation, Operation and Maintenance of the Regional Fare Coordination System

This Amendment 345 to the Contract for the Design, Implementation, Operation and Maintenance of the Regional Fare Coordination System is entered into this 7<sup>th</sup> day of July, 2015, by and between Vix Technology (USA) Inc (formerly known as ERG Transit Systems (USA) Inc), a California corporation and wholly owned subsidiary of Vix Mobility Pty Ltd, an Australian corporation, (hereinafter referred to as the "Contractor") and each of the following seven public transportation agencies (hereinafter referred to individually as an "Agency" or collectively as the "Agencies"):

1. Central Puget Sound Regional Transit Authority ("Sound Transit")
2. King County ("King County")
3. Kitsap County Public Transportation Benefit Area ("Kitsap Transit")
4. Pierce County Public Transportation Benefit Area ("Pierce Transit")
5. Snohomish County Public Transportation Benefit Area ("Community Transit")
6. City of Everett ("Everett")
7. State of Washington, acting through the Washington State Department of Transportation, Washington State Ferries Division ("WSF")

#### Recitals

- A. Effective April 29, 2003, each of the Agencies and the Contractor entered into Contract #229944 ("Contract") to implement a Regional Fare Coordination System ("RFC System") to establish a common fare system utilizing smart card technology. The Contractor is responsible for the development, implementation, operation, and maintenance of the RFC System as specified in the Contract.
- B. The Agencies and the Contractor desire to amend Section VI of Exhibit 9, Price Schedule Special Programs, to compensate the Contractor for the work necessary to schedule, configure, design, develop and test a permanent BOC (Back Office Computer) backup solution. This work is performed per Change Request CR-11579 *Permanent BOC Backup Solution v2.0* as approved by the Agencies on June 12, 2015.
- C. The Parties agree that the Work necessary to implement a permanent BOC backup solution will be performed and compensated as described below.

## **Agreement**

### **Section 1.0 Description of Work**

The Contractor will provide the services of a qualified Technical Engineer, Engineering Manager, and System Design Manager to perform the work. The Contractor will:

#### **1.1 Build target storage, NFS locations, and maintain a service level agreement (SLA) for SAN (storage area network)**

- (a) Set up a Solaris location that can receive rsync and place it on the Hitachi Adaptable Modular Storage (AMS 2100) SAN located at Internap datacenter at Fisher Plaza
- (b) Maintain a service level agreement (SLA) for AMS 2100 SAN through the end of the ORCA contract, December 31, 2021

#### **1.2 Write script components for the backup jobs**

- (a) Set up database backup jobs locally on the BOCs for Oracle and SQL (structured query language) protection
- (b) Create a series of cygwin and rsync scripts to sync the backup data to the rsync target AMS 2100 SAN located at Internap datacenter at Fisher Plaza
- (c) Identify other necessary files that will be needed to complete a full restore of the BOC

#### **1.3 Monitor and schedule scripts**

- (a) Schedule cygwin and rsync scripts so the completion status can be monitored in check\_mk
- (b) Use rsync to limit bandwidth consumed during file transfer

#### **1.4 Testing in RTB (Regional Test Bed)**

- (a) Using RTB BOC, Vix template, and local storage on the HyperV (virtual machine) host complete a full restore using data gathered by the scripts on a fresh OS (operating system)
- (b) Refine scripts to correct for any missing data pieces
- (c) Estimate the amount of data to be transferred on a regular basis

#### **1.5 Backup one production BOC**

- (a) Schedule outage window to backup one (1) production BOC
- (b) Revisit steps in 1.3 and 1.4 until a complete restore is possible using collected data
- (c) Gather data on the amount of time necessary to complete the file transfer

#### 1.6 Backup remaining Agency BOCs

- (a) After successful completion of steps 1.5 (a)-(c) above schedule outage windows to replicate backup process to remaining Agency BOCs
- (b) Write additional monitoring scripts to report status of the backup jobs
- (c) Integrate the status reports with existing Vix system availability alerting and trend graphing
- (d) Retire existing USB (universal serial bus) external hard drives and wipe data from discs

#### 1.7 The Contractor will update system documentation which has been identified as:

- (a) SEA-00031 Clearinghouse Services (DR 5)
- (b) SEA-00104 System Backup and Recovery Plan (CDRL 5)

### Section 2.0 Schedule

2.1 The Work described in Section 1.0 will be completed no later than December 31, 2015.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, the sufficiency of which is hereby acknowledged, the Parties hereby agree to amend the Contract as follows:

### Section 3.0 Compensation Changes

Section VI (Implementation) of Exhibit 9, Price Schedule, is hereby amended to read as follows:

## VI. IMPLEMENTATION

### SPECIAL PROGRAMS

<b>LUMP SUM COST</b>
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To provide qualified staff to implement a permanent BOC backup solution.	
<b>TOTAL</b>	<b>\$26,141</b>

#### Section 4.0 Other Terms and Conditions

All other provisions of the Contract not referenced in this Amendment Three Hundred and Forty Five shall remain in effect.

IN WITNESS WHEREOF, authorized representative of the Agencies and the Contractor have signed their names in the spaces provided below.

**Vix Technology (USA) Inc.**

By: [Signature]  
Its: General Manager  
Date: 7/2/15

**The Agencies**

By: [Signature]  
Their: operation manager  
On behalf of the Agencies  
Date: 7/7/15